

**9<sup>th</sup>**  
**NATIONAL**  
**AMATEUR RADIO**  
**CONVENTION**

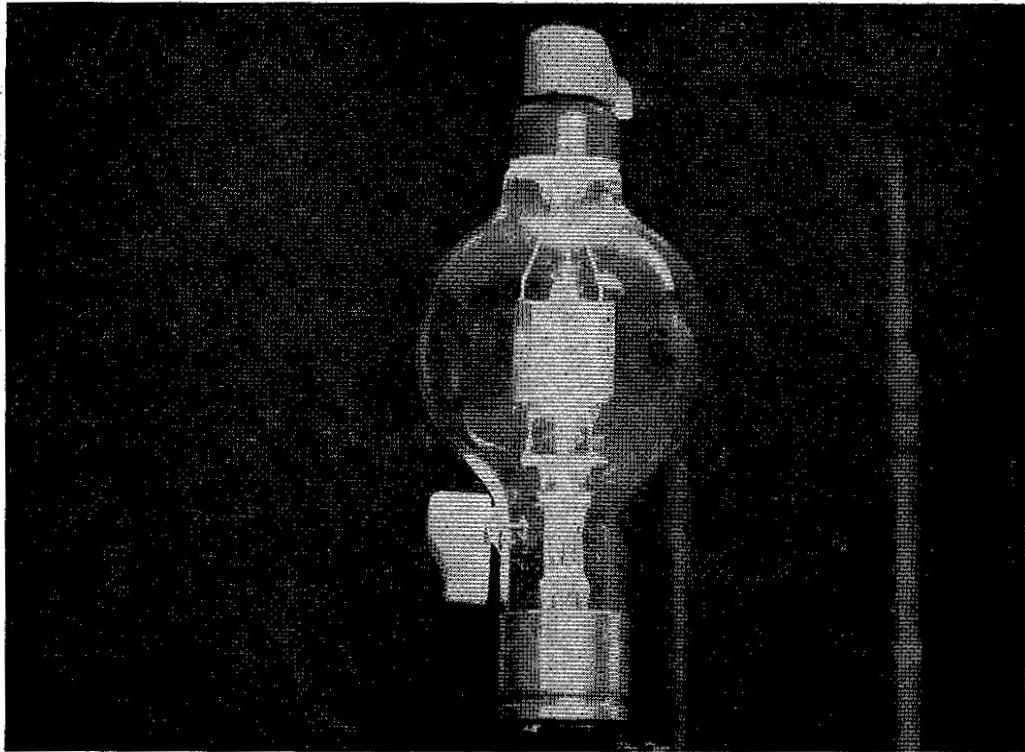
AMERICAN RADIO RELAY LEAGUE

•  
**2<sup>ND</sup>** INTERNATIONAL CONVENTION  
YOUNG LADIES RADIO LEAGUE

•  
THE PALMER HOUSE • CHICAGO



*August 30, 31 and September 1, 1957*



22 year old, 50T in test after its recent return to Eimac.

## FIRST EIMAC 50T RETURNS HOME AFTER 22 YEARS

This is the first Eimac 50T that ever rolled off the production line. It returned home as good as new—22 years after being given away as a prize at a Fresno hamfest in 1935. When it was received at the Eimac plant, it was placed into a series of tests. The 50T had retained its vacuum, without element deterioration. The tube took its rated input without irregular operation.

The amateur who must have the best dignifies his transmitter with Eimac tubes. This way he is assured of getting a product that is the result

of the finest engineering plus painstaking craftsmanship and construction.

Eimac, always aware of the strict requirements of the amateur for "tubes that can take it", is constantly improving, and adding to, its line of tubes. A request to the Amateur Service Bureau will bring immediate, comprehensive information about the tube of your choice.

**EITEL-MCCULLOUGH, INC.**  
SAN BRUNO · CALIFORNIA

*Eimac First for quality, dependability and performance*



Seven outstanding Eimac tubes for the amateur:

4CX300A

4X250B

4250A

4-65A

4-400A

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4E2/A



## **MEMBER CLUBS**

Amateur Radio Emergency Association

Chicago Amateur Radio Club

Chicago Chapter Young Ladies Radio League

Chicagoland Mobile Radio Club, Inc.

Chicago Radio Traffic Association, Inc.

Chicago Suburban Radio Association, Inc.

Chicago Vocational High School Radio Club

Elgin Amateur Radio Society

Fox River Radio League

Hamfesters Radio Club, Inc.

Illinois Ham Club

Ladies Amateur Radio Klub

Lane Tech High School Radio Club

Midwest V H F Club

North Suburban Radio Club

Northwest Amateur Radio Club

Oak Park and River Forest Radio Club, Inc.

Radio Amateur Megacycle Society

Society Radio Operators

Target City Net Control Operators Association

Wheaton Community Radio Amateurs

York Radio Club



PHIL HALLER

W9HPG

Chairman, CARCC  
and Program Chairman

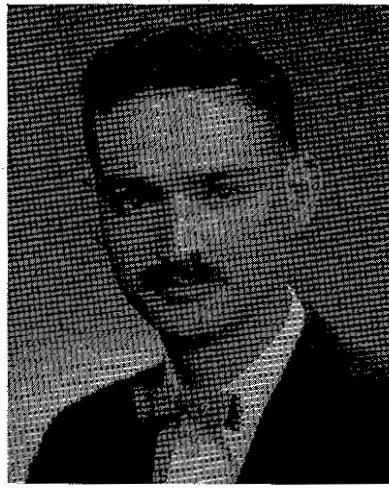
**GREETINGS FROM THE CHICAGO AREA RADIO CLUBS**

To all radio amateurs, their YLs, XYLs, and friends, the Radio Clubs of the Chicago Area extend greetings and a hearty welcome.

In sponsoring this, our third Convention, it has been our purpose to provide a medium for bringing to you talks and discussions on the latest developments in the art, an interesting and instructive display of the latest apparatus and equipment, and a place where friend may meet friend.

It is our hope that you will enjoy the features arranged for your entertainment and study, and that you will meet the men and women who have been on the other end of our QSOs.

PHIL HALLER



JORDAN KAPLAN

W9QKE

*General Manager*  
9th National Amateur Radio Convention

Welcome!

This 9th National Amateur Radio Convention of the American Radio Relay League represents the work of over 200 HAMS in the greater Chicago Area and over eighteen months of planning.

With the diversified interests in Ham radio today, we have attempted to have each facet of our hobby represented in the program. We have drawn from what we believe to be the finest talent in the electronic industry, to present to those attending, the latest in technical information concerning our hobby.

I would like to acknowledge the fine cooperation of the headquarters personnel of the American Radio Relay League, the production team of QST magazine, the members of the Chicago Area Radio Club Council, Inc., and above all, the entire staff of this 9th National Convention, without whose help, this convention would not be possible.

JORDAN KAPLAN

## CONVENTION COMMITTEE



LADD SMACH  
W9CYD  
Asst. Gen. Mgr.



BILL TRAXLER  
W9FUJ  
Treasurer



SAM NILES  
W9FBP  
Registration



SANDY LOEY  
W9NDN  
ARRL Booth



ED McMULLIN  
K9AXK  
Food Functions



ROBERT SEALS  
K9AHK  
Publicity



STEVE MAKOWSKI  
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BETTY SANDBERG  
W9STR  
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ROBERT DRAPEAU  
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W9QCR  
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DONALD DE JONG  
W9KUJ  
Prizes



GEORGE GRAUE  
W9BKJ  
Wouff-Hong



WILLIAM HARPER  
W9BWM  
License Exams



JOSEPH KADLEC  
W9UIN  
Novice



J. E. TERRAS  
W9UBJ  
Novice

## **CONVENTION COMMITTEE**



SANDY GALLUP  
W9HXI  
*Signs*



ARTHUR SWINFIN  
W9DO  
*Traffic*



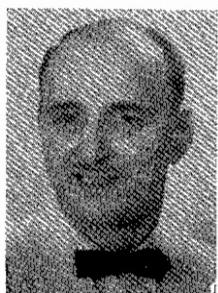
GEORGE BOYD  
W9SPT  
*RTTY*



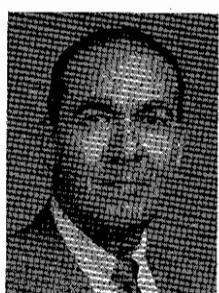
BUD RUNZEL  
W9OGA  
*SSB*



JOHN LANDECK  
W9WOK  
*VHF*



ANTHONY KRIZ  
W9SPB  
*A.R.E.C.R.A.C.E.S.*

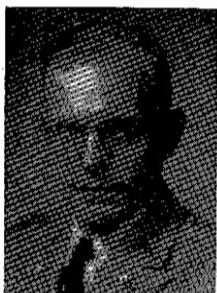


MYRON HEXTER  
W9FKC  
*DX-W9DXCC*

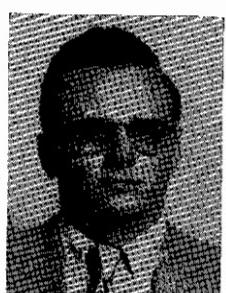


BYRON LINDHOLM  
W9OA  
*MARS*

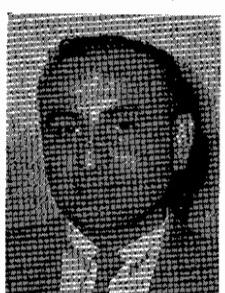
## **ADDITIONAL CONVENTION SPEAKERS**



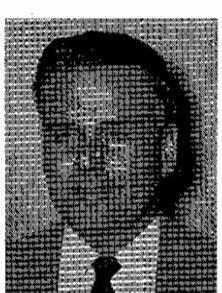
MAJ. W. ROBSON  
W4ADZ



WALTER BAIN  
W4LTU



PHILLIP CATONA  
W2JAV



THOMAS STEWART  
W2TBD

## **ACKNOWLEDGMENTS**

We gratefully acknowledge the help and co-operation of the

Lloyd Alm, W9VRW  
Capt. S. P. Aurelio, MARS  
Reuben Balfour, W9PBM  
Mrs. Reuben Balfour  
Edward Baran, W9UML  
James Baron, W9TVF  
Van Bowman, W9FMJ  
Edward Branchfield, W9SRJ  
William Cannon, W9ILS  
Mrs. Cannon  
Bert Cottrell, W9OCV  
Al Cox, W9UAQ  
Evelyn Cudio, K9EMS  
Jerry Dahl, W9TTQ  
J. E. DeJong  
Walt Dian, W9REM  
Hal Drapeau, K9BOV  
Paul Edwards, W9NDA  
George Eggert, W9UTK  
Ike Eichorst, W9RUK  
Everett Ellsworth, W9JMG  
Clarence Ennes, K9AEC  
Frank Eskuchen, W9ZNY  
Laurence Finnem, K9EEC  
Frank Fisher, W9BMJ  
Bill Flapan, K9BBC  
Larry Gleason, K9HOY  
Thomas Goetzinger, W9VVO

Joseph Hadfield, W9PVK  
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Ev Hanna, W9NWK  
Ross Hansch, W9RBI  
Elsie Harper  
Lylas Heintzman, K9BZI  
George Hinkes, W9YXN  
Lynn Hirshman, KN9GNQ  
Raymond Hupp, W9CLF  
Gladys Jones, W9MYC  
Robert Jones, W9DWD  
Howard Karmin  
Jim Kastrup, W9JGA  
Frank Kilburn, W9ORM  
Mrs. L. Knoelke  
Mary Koctur, K9BWJ  
Jack Kovitz, W9EFI  
Mrs. A. Kriz  
Joe Kroll, W9EFN  
Dr. T. Krysinski, W9SQE  
Walter Lang, KN9GNX  
Paul Lind, W9CAA  
George Lindeman, W9QQS  
E. J. Lowe, W9PVO  
Steven Makowski, W9YY5  
Frank McDonnell, W9YUC  
Harold McKissick, W9LCA

following people who assisted the various committee chairmen  
in making this convention a success.

Mel Mendelsohn, W9OBW

Frank Merlik, W9PVE

Ralph Miller, W9BOZ

Ray Morrison, W9GRW

George Nesbed, W9LQF

Gil Newholm, W9YUM

Bob Paculat, W9JBT

Douglas Pavek, W9FDX

Dorothy Petersen, KN9ESB

E. A. Peterson, F.C.C.

Vergne Petersen, K9BBK

Wm. Peterson, W9VTW

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Marge Schum, K9EMP

Ignas Schwinn, W9ROS

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Jack Shaddon, W9KTY

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Jim Stubner, W9QKM

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Carl Swanson, W9EJ

H. J. Swanson, W9DRN

Leo Tanke Sr., W9SAQ

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Wm. Tinsley, W9BPW

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Mrs. M. Veach, MARS

Paul Watkins, K9ANC

Leevane Weaver, W9KCW

Bob Weitbiecht, W9TCJ

James Wilson, W9BUK

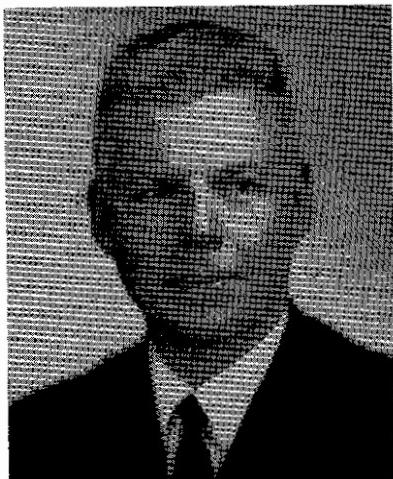
Hank Wood, W9PCB

John Young, W9GOB

# **AMERICAN RADIO RELAY LEAGUE**



**GOODWIN L. DOSLAND**  
**W0TSN**  
*President, ARRL*



**ARTHUR L. BUDLONG**  
**W1BUD**  
*General Manager, ARRL*



**FRANCIS E. HANDY**  
**W1BDI**  
*Communications Mgr., ARRL*

# **AMERICAN RADIO RELAY LEAGUE**

**JOHN HUNTOON**

**W1LVQ**

**Ass't General Manager, ARRL**



**JOHN G. DOYLE**

**W9GPI**

**Director Central Division**



**GEORGE T. SCHREIBER**

**W9YIX**

**Section Communications Mgr.  
Illinois**



# **SPECIAL GROUP HEADQUARTERS**

(These rooms open from 9:00 a.m. — 12:00 Midnight each day)

## **THIRD FLOOR**

TRAFFIC—Room 4  
under direction of Illinois Traffic Nets

AREC AND RACES—Room 5  
under direction of Chicago AREC and RACES

MOBILE—Room 6  
under direction of Chicagoland Mobile Radio Club

RTTY—Room 11  
under direction of CHI-RTTY

CRYSTAL ROOM  
YLRL Headquarters

## **CLUB FLOOR**

Army and Air Force MARS—Room 14

FCC—Room 15  
under direction of Society Radio Operators

VHF—Room 17  
under direction of Midwest VHF Club

DX—Room 18  
under direction of W9DXCC

## **FOURTH FLOOR FOYER**

### **QSL—PHOTO—NOVICE CONTESTS**

●  
**Registration for Code Speed Contests**

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**(SEE PROGRAM 1:30 P.M. SUNDAY)**

(NOTE: Admittance to all events by badge only)

# PROGRAM

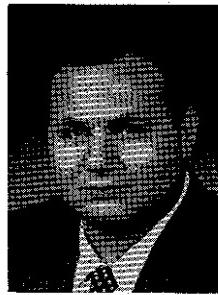
## FRIDAY, AUGUST 30, 1957

(All meetings start PROMPTLY at stated CDST time)

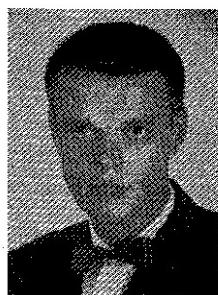
- 8:00 A.M.— 9:00 P.M.—Registration desks open (all must register)  
9:00 A.M.— 5:30 P.M.—Special YLRL registration in Crystal Room  
9:00 A.M.—10:00 P.M.—Exhibition Hall open  
9:00 A.M.— 5:00 P.M.—Tours available. See signs 4th floor lobby for tours and starting times  
7:30 P.M.— 9:30 P.M.—MARS Meeting—Room 14  
Major Warren Robson W4ADZ Chief Army MARS  
Edward S. Liscombe K4KNY, Harold F. Byrd W4HY  
9:00 P.M.—12:00 M.—Grand Ballroom. Ham Get-to-Gether  
"The Story of DX," slides and tape by Antique Wireless Association of Rochester, N. Y., and film "Every Single Minute."

## SATURDAY, AUGUST 31, 1957

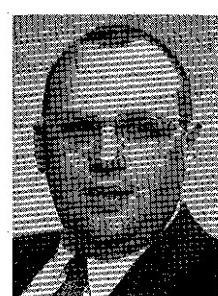
- 8:00 A.M.— 6:00 P.M.—Registration Desk open  
9:00 A.M.—11:00 A.M.—Special YLRL registration in Crystal Room  
9:00 A.M.— 6:00 P.M.—Exhibition Hall open  
9:00 A.M.— 3:00 P.M.—Chicago CD Mobile Communication Unit on display State Street entrance  
X 9:00 A.M.— 4:30 P.M.—Mobile Trouble Shooting Clinic—Room 6  
X 9:00 A.M.— 9:50 A.M.—GRAND BALLROOM—"New Types of Trap Antennas" by Andrew A. Andros, WØLTE, Pres. HY-GAIN Antenna Products Co., Lincoln, Neb.  
RED LACQUER ROOM—"Printed Circuitry in a Communications Receiver Kit" by Thomas A. Pickering, W9LRA, Knight Electronics Corp., Chicago, Ill.  
9:15 A.M.—10:15 A.M.—Novice Examinations (FCC) Room 15, Wm. Harper, W9BWM in charge  
9:30 A.M.—10:50 A.M.—VHF 432 MC Hidden Transmitter Hunt, Grant Park, hotel if raining. Conducted by Richard Gillette, W9RSU and Paul Watkins, K9ANC  
10:00 A.M.—10:50 A.M.—GRAND BALLROOM—"Modernization of the Amateur Bands with Synchronous Communications" by John K. Webb, WØAHHM/2. General Electric Co., Light Military Electronic Equipment Dept., Utica, N. Y.  
RED LACQUER ROOM—"Modernizing Your Receiver with Adaptors" by Byron Goodman, W1DX, Assistant Technical Editor, QST (ARRL)  
10:30 A.M.—12:00 N.—Technician Exams (FCC) Room 15  
11:00 A.M.—11:50 A.M.—GRAND BALLROOM—"Radio Tracking of the Earth Satellite" by Roger Easton, Naval Research Laboratory, Washington, D. C.



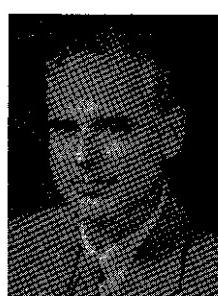
ANDREW ANDROS



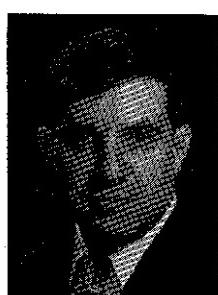
THOMAS PICKERING



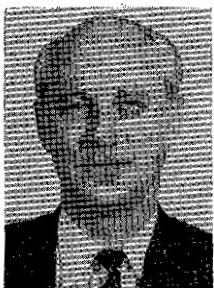
JOHN WEBB



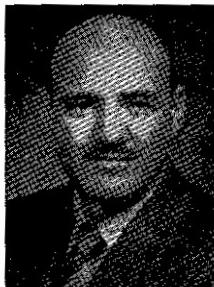
BYRON GOODMAN



ROGER EASTON



FRITZ FRANKE



EDWARD TILTON



GEORGE ASHTON



MASON SOUTHWORTH



GEORGE GRAMMER

~~X~~ RED LACQUER ROOM—"Applications of Transistors in Amateur Equipment" by Danny Weil VP2VB, and Fritz A. Franke, The Hallicrafters Co., Chicago, Ill.

12:00 Noon—1:30 P.M.—Time for Lunch. View Exhibits, etc.

1:30 P.M.—4:20 P.M.—DX Forum, Room 18. DX Expedition Men. DX Slides. Talk by John Doyle W9GPI, Doug Pavek, W9FDX presiding. All DX'ers invited

1:30 P.M.—3:00 P.M.—General Class Examinations (FCC) Room 15

1:30 P.M.—5:30 P.M.—RTTY Demonstrations—Technical Meeting. Room 11. Boyd Phelps, WØBP

1:30 P.M.—2:20 P.M.—GRAND BALLROOM—"VHF DX How and When" by Ed Tilton, W1HDQ, VHF Editor QST (ARRL)

~~X~~ RED LACQUER ROOM—"The How and Why of Beam Antennas" by George B. Ashton, W9PNV

2:00 P.M.—3:50 P.M.—MARS Get-to-Gether. Room 14

2:30 P.M.—3:20 P.M.—GRAND BALLROOM—"The Amateur and the IGY Program" by Mason Southworth, W1VLH, IGY Project Coordinator (ARRL)

~~X~~ RED LACQUER ROOM—"Harmonic Elimination and TVI" by Lewis G. McCoy, WIICP, Technical Assistant, QST (ARRL)

3:30 P.M.—5:00 P.M.—Extra Class Examinations (FCC) Room 15

3:30 P.M.—4:20 P.M.—GRAND BALLROOM—"The Ionosphere and DX" by George Grammer, W1DF, Technical Editor, QST (ARRL)

RED LACQUER ROOM—Forum—"Your Future in Amateur Radio" by Joseph H. Kadlec, W9UIN, presiding.

"Why the ARRL?" A. L. Budlong, W1BUD, General Manager, ARRL

"Traffic and Emergency Work—The ARRL Field Organization," F. E. Handy, W1BDI, Communications Mgr.

"Operating Procedures—ARRL Contests and Awards," John Huntoon, W1LVQ, Assistant General Manager

4:30 P.M.—6:00 P.M.—SPECIAL GROUP MEETINGS—

Traffic Room 4—Panel discussion: Merits of CW—PHONE—and RTTY in traffic handling. Art Swinfin, W9DO Moderator

AREC/RACES Room 5—Jack Stanton W9PSP "Emergency Communications in Illinois." Charles Bert, W9UBY "Emergency Chalk talk for 6M Operators." William Reed, W9PAS "Operation Whiting," Gladys Jones, W9MYC presiding

Mobile Group, Room 6—Mobile forum, George Lindemann, W9QQS presiding

RTTY, Room 11—Forum with WØBP—W9SPT—W9GRW Novice Forum—RED LACQUER ROOM—Continuation of Novice Forum

DX, Room 18—"The Story of DX" film slides and sound, Bruce Kelley, W2ICE and The Antique Wireless Ass'n, Rochester, N. Y. Introduction of DX notables, with short talks

VHF Technical Session—GRAND BALLROOM—

Paul M. Wilson, W4HHK "50 mc. Array for Scatter Communication." Joseph H. Heuer, W9YNQ "Channel One," John Landek, W9WOK presiding

X 7:00 P.M.—8:50 P.M.—MARS and State Directors N.C.S. Meeting, Room 14, Byron Lindholm, W9OA presiding

X 7:00 P.M.—9:30 P.M.—RED LACQUER ROOM—1st National SSB Dinner. Fred Schnell, W4CF presiding. Bud Runzel, W9OGA, Chairman. Admiral H. C. Bruton, W4IH, speaker

X 7:00 P.M.—9:30 P.M.—RTTY Dinner—Room 11. ZL1WB Honored guest

X 7:00 P.M.—9:30 P.M.—VHF Dinner—Room 17

X 7:00 P.M. 10:00 P.M.—DX Dinner—Room 18. Speaker: Bob White, W1WPO (ARRL), Hank Meyer, YA1AM. Danny Weil of "Yasme" fame. Myron Hexter, W9FKC, MC.

10:00 P.M.—11:30 P.M.—GRAND BALLROOM—Entertainment for all. Doors open at 9:30 P.M.

12 Midnight—WOUFF-HONG Initiation—RED LACQUER ROOM

**SUNDAY, SEPTEMBER 1, 1957**

(All meetings start promptly at stated CDST time)

X 10:00 A.M.—6:00 P.M.—Registration Desks open

X 10:00 A.M.—12:00 M.—Mobile Transmitter Hunting Forum Room 6, W9QQS presiding.

9:15 A.M.—10:15 A.M.—NOVICE EXAMINATIONS (FCC) Room 15

9:30 A.M.—5:00 P.M.—Exhibition Hall open

X 10:00 A.M.—10:50 A.M.—GRAND BALLROOM—"Antenna and Feeder Wave Patterns Visualized." Talk and Demonstration by Richard Howe, W8CBN, Denison University

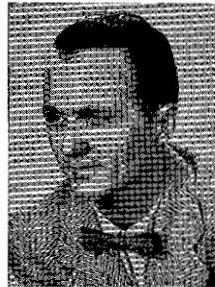
RED LACQUER ROOM—"The AREC & RACES," Ed Handy, W1BDI, Communications Mgr., ARRL; George Hart, W1NJM, National E.C.

10:30 A.M.—12:00 N.—TECHNICIAN EXAMINATIONS (FCC) Room 15

10:30 A.M.—12:00 N.—AT PLANETARIUM (lake front) VHF group. Obtain directions in the VHF room. Demonstration and discussion of "The Fundamentals of Astronomy and Origin of Meteors," by Albert V. Shatzel, Director, Adler Planetarium

"Some Aspects of Meteor Scatter Propagation," Walter F. Bain, W4LTU, Physicist, Systems. Inc.

11:00 A.M.—11:50 A.M.—GRAND BALLROOM—"New Developments in Mobile SSB," Preston Simms, WØRH, Collins Radio Co., Cedar Rapids, Iowa



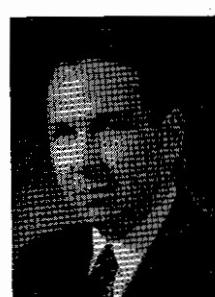
PAUL WILSON



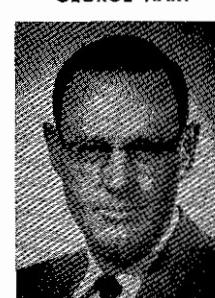
JOSEPH HEUER



RICHARD HOWE



GEORGE HART



PRESTON SIMMS



CHARLES DEWEY

RED LACQUER ROOM—"RACES in Defensive Planning," Charles E. Dewey, W8LBM, Warning and Communications Office, FCDA, Battle Creek, Michigan

11:00 A.M.—12:00 M.—DX Meeting—Room 18. Discussion of DX Ethics

1:30 P.M.—2:20 P.M.—High Speed Code Contest in Exhibition Hall Annex

1:30 P.M.—2:20 P.M.—GRAND BALLROOM—"Transmitter and Linear Amplifier Design and Operating Considerations," Albert M. Pichitino, WØEDX, E. F. Johnson Co.

RED LACQUER ROOM—"Construction Practices," Lewis G. McCoy, W1ICP, Technical Assistant, QST (ARRL)

Room 17—"VHF Transmitter Hunting" by T. E. Stewart, W2TBD; E. Kephart, W2SPV; P. Catona, W2JAV of the South Jersey Radio Association

1:30 P.M.—3:00 P.M.—GENERAL CLASS EXAMINATIONS (FCC) Room 15

1:30 P.M.—3:20 P.M.—Monroe St. parking lot: MOBILE JUDGING—by Chicagoland Mobile Radio Club

2:00 P.M.—3:20 P.M.—Room 18—W9DXCC Election and Business Meeting. Distribution of QSLs. Doug Pavek, W9FDX presiding

2:30 P.M.—3:20 P.M.—GRAND BALLROOM—"Pioneers of Wireless" film and tape, by Antique Wireless Ass'n., of Rochester, N. Y. Bruce Kelley, W2ICE, secretary

RED LACQUER ROOM—"Application of a High-Peformance Power Tetrode" by John W. Gaylord, K3AKI, Radio Corporation of America, Lancaster, Penn.

Room 17—VHF Open Forum, F. Sam Harris, W1FZJ presiding

3:30 P.M.—5:30 P.M.—GRAND BALLROOM—ARRL Business Meeting and Forum: Mr. John G. Doyle, W9GPI, Director Central Division, presiding

"Amateur Radio in the Public Interest Convenience and Necessity," Goodwin L. Dosland, WØTSN, President, ARRL

"The Amateur and the 1959 International Radio Conference," A. L. Budlong, W1BUD, General Mgr. ARRL. Open Forum discussion

8:00 P.M.—???.—GRAND BALLROOM—

Leo Meyerson, WØGFQ, at the organ

GRAND BANQUET—Summer B. Young, WØCO, Toastmaster

Presentation of Special Award by Rear Admiral H. C. Bruton, W4IH and ARRL Merit Award by President Dosland, WØTSN

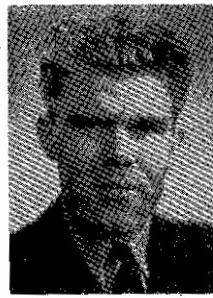
Lieutenant General Francis H. Griswold, KØDWC, USAF "The Strategic Air Command and World Wide Communications"



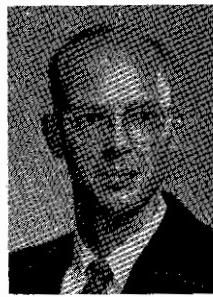
ALBERT PICHTINO



LEWIS McCOY



BRUCE KELLEY



JOHN GAYLORD

## **LADIES PROGRAM**

### **FRIDAY, AUGUST 30, 1957**

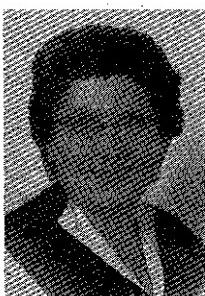
9:30 A.M.- 1:30 P.M.—Register 4th Floor for Ladies Program  
11:00 A.M.- 1:30 P.M.—Tour of WNBQ at Merchandise Mart (Limited to 30 People)  
Tour of Art Institute  
Tours Leave From 4th Floor Ladies Registration Area  
1:30 P.M.- 2:30 P.M.—Lunch at Walgreen's Oak Room Cafeteria (State and Randolph)  
2:30 P.M.—Back to Palmer House to see exhibits, etc.  
Evening free. Literature on where to go and what to see in Chicago available at registration desk.

### **SATURDAY, AUGUST 31, 1957**

8:00 A.M.- 8:00 P.M.—Register 4th Floor, for Ladies Program and Tours  
10:00 A.M.-12:00 M. —Tour of Observation Tower  
on Top of Prudential Building  
12:30 P.M.- 1:30 P.M.—Luncheon at Marshall Field's Wedgewood Room.  
SWOOP. Afternoon Free for Shopping  
10:00 P.M.-11:30 P.M.—Special Show in Grand Ballroom

### **SUNDAY, SEPTEMBER 1, 1957**

10:30 A.M.- 5:00 P.M.—Tour of Museum of Science and Industry. Bus Loads  
at State St. Entrance at 10:30 A.M.  
Lunch at Museum in Cafeteria or Sandwich Room.  
Bus Returns to Palmer House at 5:00 P.M.  
Evening Free to Rest and Change  
8:00 P.M. - ? ? ? —Grand Banquet in Grand Ballroom



MARIE McKISSICK  
XYL of W9LCA  
Ladies Chairman

## **2nd INTERNATIONAL YLRL CONVENTION**

# **YLRL PROGRAM**

**Crystal Room, Palmer House, Chicago**

### **FRIDAY, AUGUST 30, 1957**

9:00 A.M.- 5:30 P.M.—YLRL REGISTRATION

11:00 A.M.- 5:00 P.M.—TOURS AVAILABLE—See General ARRL Convention Program

6:30 P.M.- 8:00 P.M.—YLRL SPAGHETTI SUPPER

### **SATURDAY, AUGUST 31, 1957**

9:00 A.M.-11:30 A.M.—YLRL REGISTRATION—Meet and Greet Your Friends!

12:30 P.M.- 3:30 P.M.—YLRL LUNCHEON and FORUM

Mae Burke, W3CUL, Speaker

Eleanor Wilson, W1QON

Louisa B. Sando, W5RZJ

Betty Frederick, W3PVH

Prizes and Souvenirs

6:00 P.M.- 9:00 P.M.—Meet 6 P.M. Sharp in Crystal Room FOR TRIP TO CHINATOWN DINNER

### **SUNDAY, SEPTEMBER 1, 1957**

12:30 P.M.- 3:30 P.M.—Meet in Crystal Room for YL Boat Trip at 12:30 P.M.  
Courtesy of Newark Electric Co.

8:00 P.M. - ? ? ? —GRAND BANQUET, Grand Ballroom



BETTY FREDERICK  
W3PVH  
President, YLRL



MAE BURKE  
W3CUL  
Edison Award Winner



CRIS BOWLIN  
W9LOY  
Chairman, YLRL



ELEANOR WILSON  
W1QON  
QST YL Editor

## **CONVENTION NURSERY**

Private Dining Rooms 7-8-9, 3rd Floor—Hours 10:00 A.M. to  
12 Midnight.

Obtain special free Jr. ARRL Badges at Main Registration  
Desk, Ballroom Floor.

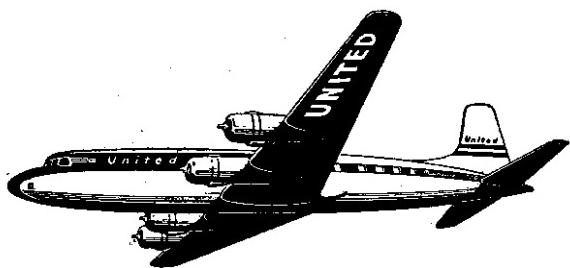
Registered Nurses will be in attendance.

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## **CONVENTION SIGHT-SEEING FLIGHT**

Courtesy UNITED AIR LINES — "THE RADAR LINE"

Lucky Registration winners will be listed on the Special Flight  
Blackboard in the Prize Shack, starting at 10:00 A.M. Saturday.  
You must claim your space by 11:30 A.M.



Crew

PILOT W9VZQ

CO-PILOT W9QJG

FLIGHT ENGR. W9NXX

STEWARDESS W1ZCS



*Flight Leaves Midway Airport 2:00 P.M., Aug. 31*

## **PRIZE DONORS**

*List of Suppliers contributing to the "Awards Shack"*

Adirondack Radio Supply  
Admiral Corp.  
Allied Radio Corporation  
Alliance Mfg. Co.  
American Radio Relay League, Inc.  
American Television & Radio Co.  
The Astatic Corp.  
Bunker and Williamson  
Cannon Electric Co.  
CBS Hytron  
Central Electronics, Inc.  
Clarostat Mfg. Co., Inc.  
Columbia Products Co.  
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Eitel-McCullough, Inc.  
Eldico Electronics  
Electro Products Laboratories  
Electro-Voice, Inc. R.M.E.  
Fairchild Publications  
Fort Orange Radio Dist. Co., Inc.  
Fredrick Tool and Eng. Corp.  
Fretco, Inc.  
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Wire Corp.  
Greenlee Tool Co.  
Hallicrafters, Inc.  
Hammarlund Mfg. Co.  
Harrington Electronics

The Heath Co.  
Hycon Eastern, Inc.  
International Crystal Mfg. Co.  
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Sigma Instruments, Inc.  
The Technical Material Corp.  
Telex Inc.  
Terado Co.  
Trimm Inc.  
Ungar Electric Tools, Inc.  
United Air Lines  
Vaco Products Co.  
WRL Electronics  
Xcelite Incorporated  
Zenith Radio Corp.

**AND OTHERS**

Special awards will be given at various times  
Saturday and Sunday

## **CONVENTION EXHIBITORS**

BOOTH	COMPANY	BOOTH	COMPANY
1-2	American Radio Relay League West Hartford, Conn.	18	Potter & Brumfield, Inc. Princeton, Indiana
3	Astatic Corporation Connecut, Ohio	19-20-21	Allied Radio Corporation Chicago, Illinois
4	Barker & Williamson, Inc. Bristol, Penn.	22-23	The Hallicrafters Co. Chicago, Illinois
5	Electro Voice, Inc. Buchanan, Michigan	24	Eitel McCullough San Bruno, California
6	WRL Electronics Council Bluffs, Iowa	25	Ward Products Corporation Cleveland, Ohio
7	High Gain Antenna Lincoln, Nebraska	26	General Electric Co. Schenectady, New York
8-9	Eldico Electronics Mineola, Long Island, N. Y.	27	Heath Company Benton Harbor 9, Michigan
10-11	Newark Electric Chicago, Illinois	28	Creative Electronic Stamford, Conn.
12	P & H Electronics Lafayette, Indiana	29-30	National Company, Inc. Malden 48, Mass.
13	Hammarlund Manufacturing Co. New York 1, N. Y.	31	Regency Division Indianapolis 26, Ind.
14	Central Electronic, Inc. Chicago 13, Illinois	32	E. F. Johnson Company Waseca, Minnesota
15	Lake Shore Electronics Manitowoc, Wisc.	34-35	Collins Radio Company Cedar Rapids, Iowa
16	Radio Corporation of America Harrison, New Jersey	37	Navy
17	Clegg Laboratories Morristown, New Jersey	38	Air Force
		39	Army

Come to Room 2346 to see—

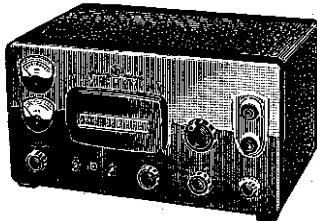
The Perfect Sideband Combination for . . .

# 2000 WATTS P.E.P.\* INPUT

## Introducing The VIKING "THUNDERBOLT" LINEAR AMPLIFIER

It's new! More "talk-power" to smash through QRM! A DOMINANT signal on all popular amateur bands!

Here's solid communication power—over 2000 watts P.E.P.\* input; 1000 watts CW; 750 watts AM linear; in a completely self-contained desk-top package. Continuous coverage 3.5 to 30 megacycles—instant bandswitching. The "Thunderbolt" may be driven by the Viking "Navigator", "Ranger", "Pacemaker", or other unit of comparable output. Drive requirements are approximately 10 watts in Class AB2 linear, 20 watts Class C continuous wave. When used with the "Pacemaker" or similar exciter, the non-inductive input circuit requires no grid tuning. Two 4-400A tetrodes in parallel, bridge neutralized, work into a wide range pi-network output circuit which will match transmission line impedances from 40 to 600 ohms. Two meters provide constant visual check—plate current meter also reads watts input, and a second meter reads grid current or plate voltage. Completely self-contained with all power supplies . . . 115 or 230 Volts AC 50-60 cycle single phase.



\*The F.C.C. permits a maximum one kilowatt average power input for the amateur service. In SSB operation under normal conditions this results in peak envelope power inputs of 2000 watts or more depending upon individual voice characteristics. The Johnson Viking "Thunderbolt" linear amplifier produces these higher powers and is the only equipment available to amateurs which can reach the maximum legal limit of "Talk-power".

Catalog No. 240-353-1 Viking "Thunderbolt"  
Kit with tubes ..... Amateur Net \$450.00

Catalog No. 240-353-2 Viking "Thunderbolt"  
Wired and tested, with tubes ..... Amateur Net \$525.00

Prices subject to change. Anticipated delivery Nov. 1957

## DRIVE IT WITH A "PACEMAKER" . . . MORE THAN AN EXCITER--A COMPLETELY SELF-CONTAINED SIDEBAND TRANSMITTER With VOX-Anti-Trip-Built-In Power Supplies

Your best buy—and here's why!

- 1.—EXCLUSIVE—Unique circuitry uses only 1 mixer for improved spurious signal rejection greater than 50 db. Eliminates great multiplicity of sum and difference spurious products inherent in systems utilizing 2 or 3 mixers.
- 2.—BALANCED RANGE AUDIO—Does not sacrifice low frequency response as is usually necessary in filter-type equipments.
- 3.—BUILT-IN VFO—Highly stable, temperature compensated and voltage regulated. Complete coverage of all bands without crystal switching or re-tuning.
- 4.—FRONT PANEL CARRIER BALANCE—Provides optimum carrier rejection.
- 5.—NO FIXED IMPEDANCE OUTPUT CIRCUIT—Wide range pi-network output assures proper load impedance to final amplifier.
- 6.—INDIVIDUAL CRYSTAL CONTROL—of sideband generating frequency for each band.



See the Viking "Pacemaker" - "Thunderbolt" power team in action . . . you are invited to drop into Room 2346 at the Palmer House during the National ARRL Convention in Chicago (August 30, 31, and September 1) to operate the perfect sideband combination. Listen for W9ZSO/9 on the air from convention headquarters.

Catalog No. 240-301-2 Viking "Pacemaker"  
Wired and tested, with tubes ..... \$495.00

See your distributor

Most authorized Johnson  
distributors offer liberal terms.  
Often as little as 10% down puts you  
on the air, and your used equipment  
(especially if it's Johnson) is always  
worth top dollar in trade.



**E. F. Johnson Company**

2830 SECOND AVE. S.W.

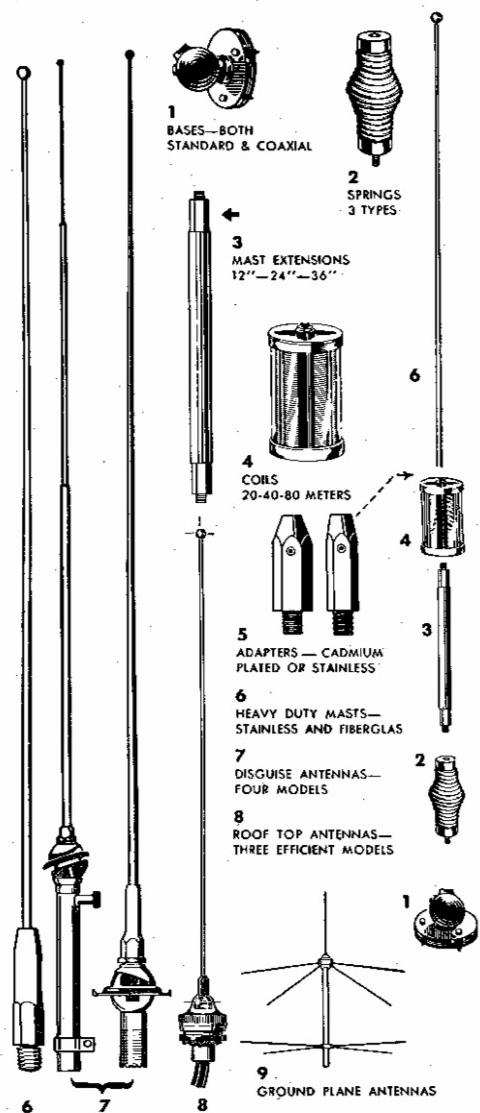
• WASECA, MINNESOTA

**NEW**

complete line for  
communication

## WARD ANTENNAS

Pioneer antenna maker now adds new bases, new masts, new springs and coils for all your requirements . . . in all price ranges.



See distributor or write for newest catalog

### Ward PRODUCTS CORPORATION

A division of THE GABRIEL COMPANY  
Dept. CQ—1148 Euclid Ave.—Cleveland 15, Ohio

In Canada: Atlas Radio Corp., Ltd.  
50 Wingold Ave., Toronto, Ontario

*Compliments*

*of*

## WOODWARD SCHUMACHER Electric Corporation

*Manufacturers of*  
**Quality Transformers & Coils**

## Western Electric Field Engineering Force

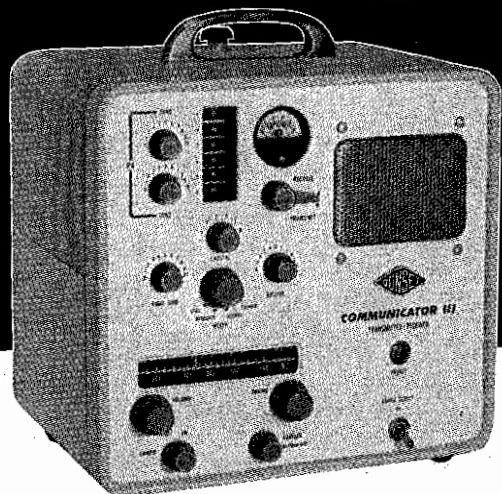
Has Openings for  
GRADUATE ENGINEERS

See  
GEORGE SPERRY

W4UKA-W9CBJ

In the Palmer House

# new

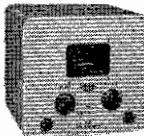


completely...  
brilliantly  
new!



## COMMUNICATOR III

Introducing a new series of complete VHF station "packages" . . . for 2 and 6 meters . . . for ground-to-air and other VHF applications.



New  
Linear  
Amplifier

These modern successors to the highly regarded Communicator family combine, in a single unit, all the features found previously only in several different models. Communicator III offers you these advantages as well as many more important, wholly new features for improved performance and operating convenience.

Now . . . for even better performance . . .  
for every model in every frequency range . . . the following:

- Modern inside and out. Finished in attractive Alpine White enamel with knobs in Gun Metal Blue. Cabinet size is approximately the same.
- 6V DC and 12V DC and 115V AC. All three. One vibrator. Simple inside strapping changes voltages.
- Full press-to-talk operation. (Actuated by button on microphone) Transmit-receive switch on panel can be used if desired.
- Receiver: New low-noise X155 RF tube in sensitive "Cascode" with AVC to avoid blocking tendency from very strong locals. Special gang-tuned circuits provide new high order of image rejection. Improved I-F selectivity. Gonset noise limiter. Adjustable squelch. Earphone provisions.
- Full-vision slide-rule-type tuning dial.
- Squelch for silent standby. Control on panel.
- Transmitter: All tunable circuits now have panel knobs. New gang-tuned circuits reduce spurious responses to negligible values. New 6L6GB modulator tube gives heavier modulation.
- Panel meter replaces "Green eye." Meter switches to exciter or RF output or to receiver for indication of relative signal level.
- Provision for 6 crystals with panel selector switch. (Also operation with external VFO.)
- Silicon diodes eliminate rectifier tubes.
- New line includes Linear Amplifiers in all frequency ranges and entirely new VFO which has ranges for both 2 and 6 meters.

less microphone and crystals. **269.50**

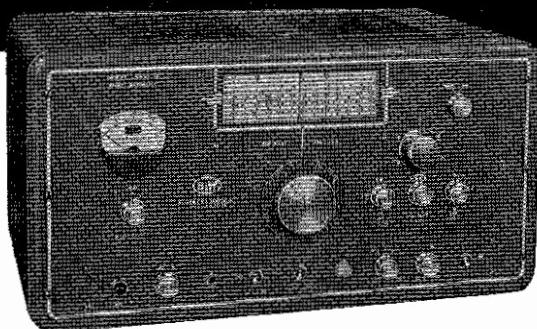
Deliveries start in September. Better get your order in now!

**GONSET**  
BURBANK, CALIFORNIA

DIVISION OF L. A. YOUNG SPRING & WIRE CORPORATION



# B&W TRANSMITTER GROWS WITH THE RADIO AMATEUR

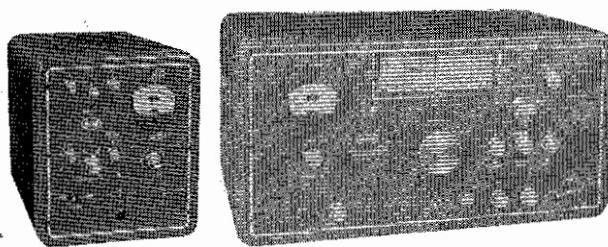


5100-B

## ◀ Start with basic Transmitter

Ideal for the oldtimer and beginner alike. It's a complete medium powered transmitter as it is . . . over 140 watts AM phone . . . 180 watts CW. Completely self-contained including power supply, VFO, and integral band-switching. Covers all ham bands 80 through 10 meters. **YOU CAN ADD SSB AND A 1 KW FINAL TO THE 5100-B AT ANY TIME.**

Net Price . . . \$475.00



51SB-B

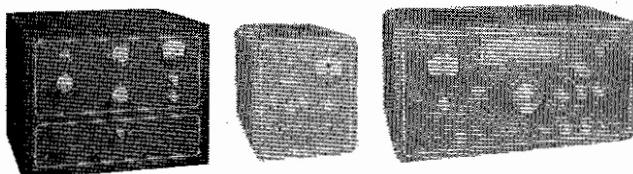
\*If you have a Viking I or II, Collins 32 V series, or other commercial or composite home-built rig, get the Model 51SB. It's similar to the 51SB-B, but contains a power supply which you'll need with transmitters other than the 5100-B.

Net Price . . . \$279.50

## ◀ Add SSB Generator

If you want to enjoy top quality single sideband, just plug the 51SB-B into the back of the 5100-B transmitter\* and you're on the air with a commanding signal. The many features of the 51SB-B include voice-operated control, selectable sideband with a flip of the switch, speaker deactivating circuit, and TVI suppression.

Net Price . . . \$265.00



L-1000-A

All these B&W units are housed in attractive cabinets with a blue-grey wrinkle finish. Panels are finished in the distinctive B&W rich semi-gloss grey, with white lettering and border stripes. They're expertly engineered to assure you of long, trouble-free operation as well as ease of control and tuning.

Prices subject to change without notice

## ◀ and then tie in 1 KW Final

When you're ready to go the limit—1 kilowatt of power—all you need to do is to add the L-1000-A. This grounded grid linear amplifier will stand out in signal eloquence whenever the going gets rough. The pi-network output gives you precise adjustment of tuning and loading from 80 to 10 meters. It's rated at 1000 watts peak envelope power SSB, 875 watts CW, and 375 watts linear AM phone.

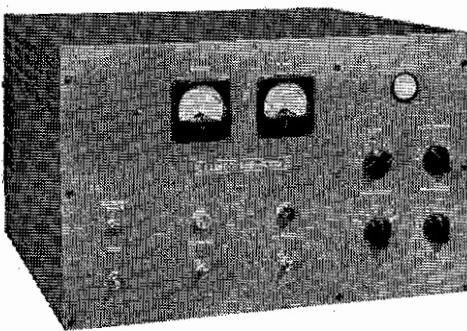
Net Price . . . \$460.00



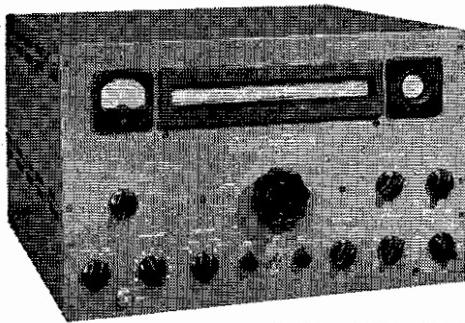
**BARKER & WILLIAMSON, INC.**

Bristol, Pennsylvania

# *Engineered RIGHT for all three . . . SSB, AM, CW, . . . by*



ELDICO SSB-1000



ELDICO SSB-100F

## ELDICO SSB-100F

Type of Emission: C.W. — A.M. — SSB

Power Ratings: DC average input SSB-100 watts; A.M. input (two tone test)—60 watts. Peak envelope power input SSB-144 watts. Peak envelope power output SSB-100 watts.

Keying: Grid block, full break-in.

Harmonics and Spurious Responses: Spurious mixer products—50 db or more down. Third order distortion products—35 db or more down. TV interference suppression—40 db or more second harmonic, 60 db or more higher harmonics.

Unwanted Sideband and Carrier Suppression: 50 db minimum attenuation, through low frequency crystal lattice filter.

Frequency Stability: Control Oscillator—(800 to 1300 kc)  $\rightarrow$  100 cycles after two minute warm up period. Output frequency—within 300 cycles after five minutes warm up period. Dial accuracy  $\pm$  2 kc after calibration.

Tube Lineup: 22 tubes, including two rectifiers, two voltage regulators, one oscilloscope and one 5894 power amplifier.

There's a lot of good commercial equipment on the market today. And some home-brew gear rivals the best of the factory built rigs. But if you stop and take a critical look at virtually all of these handsome packages you find they are the work of "specialists." Manufacturer "A," convinced that SSB is the panacea for ham work has virtually forgotten that a lot of us still like to pound brass or work AM. W2XXX, who never heard that you can modulate a rig, has a gorgeous c.w. station that can't be employed for anything else. And so it goes, making the selection of a well-rounded design more difficult than might appear at first.

Eldico, long-time pioneers in designing completeness into transmitters, spent a lot of time over the coffee pot and drawing boards to produce the newest and finest package, that's as much at home on the SSB frequencies as in the midst of trunk line A or a 75-meter AM roundtable. What does this mean to you? For one thing you'll get a chance to really enjoy ham radio at its fullest and richest . . . you can find out what the other man likes and you can compete on even terms. Price? For \$795 you start with the 100-watt SSB-100F transmitter exciter. With it you drive ANY final amplifier; or you can add, for \$745, the SSB-1000 kilowatt amplifier. Look over the specs, compare with anything on the market, and then get together with your Eldico distributor to find out what terms can be arranged to put this "Years ahead" gear in your shack.

## ELDICO SSB-1000

Low Drive Requirement: 3 watts P.E.P. will drive to full kilowatt. Pi-network Output: Single knob bandswitch. High-efficiency silver-plated Pi-network output circuit. Matches wide range of antenna impedances.

High Harmonic Attenuation: High-Q plate and grid circuits and Pi-network output circuit provide maximum harmonic-attenuation.

Power Rating: DC Input C.W. 1000 watts, A.M. 700 watts

Peak Envelope Power:  
Input SSB-1000 watts  
Output SSB-625 watts

Frequency Range: 10 thru 80 meters.

Tube Lineup: 9 tubes; two 866, two OA2, one OB2, one 6AU6, one 1CP1, two 4 x 250B.

Write W2BFY for additional details  
if your distributor can't assist you.

29-01 BORDEN AVENUE, LONG ISLAND CITY, NEW YORK

A Division of Dynamics Corporation of America

ELDICO

ELECTRONICS

Those who believe quality only is a factor are leaving themselves open to excessive charge. And those to whom price alone is the consideration may spend little but buy even less. We have tried to combine economy with quality to offer the finest performance for the least money . . . honestly believing this to be the wish of the Amateur. Sales acceptance has proven us right. We invite comparison with any other transmitters, . . . dollar for dollar, . . . watt for watt, . . . feature for feature . . . by test or testimonial. After all, it's you who should be the judge!

## Globe Scout 680

65 watts CW; 50 watts on Fone, plate modulated.

A compact, self-contained, bandswitching transmitter for operation of the 6 through 80 meter bands, with built-in power supply. High level modulation is maintained. TVI-suppressed cabinet. Pi-network output on 10-80M; link-coupled on 6M, matching into low impedance beams. New type, shielded meter. Globe Scout 66 is identical, except bandswitching 10-160M. Size: 8x14x8".

Model 680  
Cat. No. 145AF007-Kit.....\$89.95  
Cat. No. 145AF006-Wired & Tested...\$109.95  
Model 66  
Cat. No. 145AF005-Wired only.....\$99.95



FCDA Certified on factory wired and tested models for crystal controlled operation.

## Globe Chief 90

A completely bandswitching, 90 watt transmitter for 10-160M.

Here's a compact, 8x14x8", sturdy rig with well-filtered, built-in power supply. Pi-network matches most antennas from 52-600 ohms. Modified grid-block keying is employed for maximum safety. Has provisions for VFO input and operation. Kit form includes complete manual and all tubes and parts. Meter and cabinet carefully shielded for reduction of unwanted TVI.

Cat. No. 145AF013-Kit.....\$54.95  
Cat. No. 145AF012-Wired & Tested....\$67.50

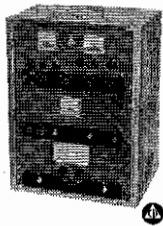


Now, increased safety factor through use of the 4-400A Final Tube

## Globe King 500B

A bandswitching transmitter for 540 watts on fone and CW; 540 watts on SSB (P.E.P.), with 10W external exciter.

Outperforming any rig in its price and wattage range, the King bandswitches 10-160M in a 31x22x14 $\frac{3}{4}$ " handsome cabinet, especially designed for TVI-suppression. The Transmitter is relay controlled; includes a built-in antenna relay; built-in VFO; and separate power supply for modulator section, allowing better overall voltage regulation. Commercial-type compression circuit keeps modulation at high level. King features grid-block keying for signal clarity. Pi-network matches most antennas, 52-600 ohms. Provisions for crystal operation.



Cat. No. 145AF001-Wired & Tested.....\$725.00

All WRL Electronics Transmitters operate on most CAP and MARS frequencies.

## Globe Champion 300

A bandswitching, 10-160M, Transmitter for 350 watts CW, 275 watts fone, and 300 watts SSB (P.E.P.), with any 10W external exciter.

The single-switch bandswitching Champion is extensively TVI-suppressed, filtered and bypassed. High level Class "B" modulation is sustained without usual clipping distortion through use of a new commercial type compression circuit. Pi-network output circuit, 48-700 ohms, built-in VFO, push-to-talk, antenna changeover relay, and improved Time Sequence keying are all features. 1000 volt plate capacity of Final tubes offer 83 $\frac{1}{2}$ % safety factor. Only 12x21 $\frac{1}{2}$ x17" in size, self-contained.

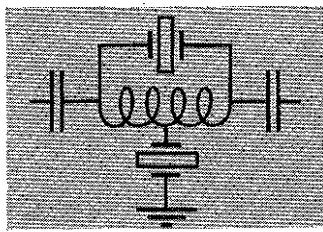
Cat. No. 145AF011-Kit.....\$375.00  
Cat. No. 145AF010-Wired & Tested .....\$449.00



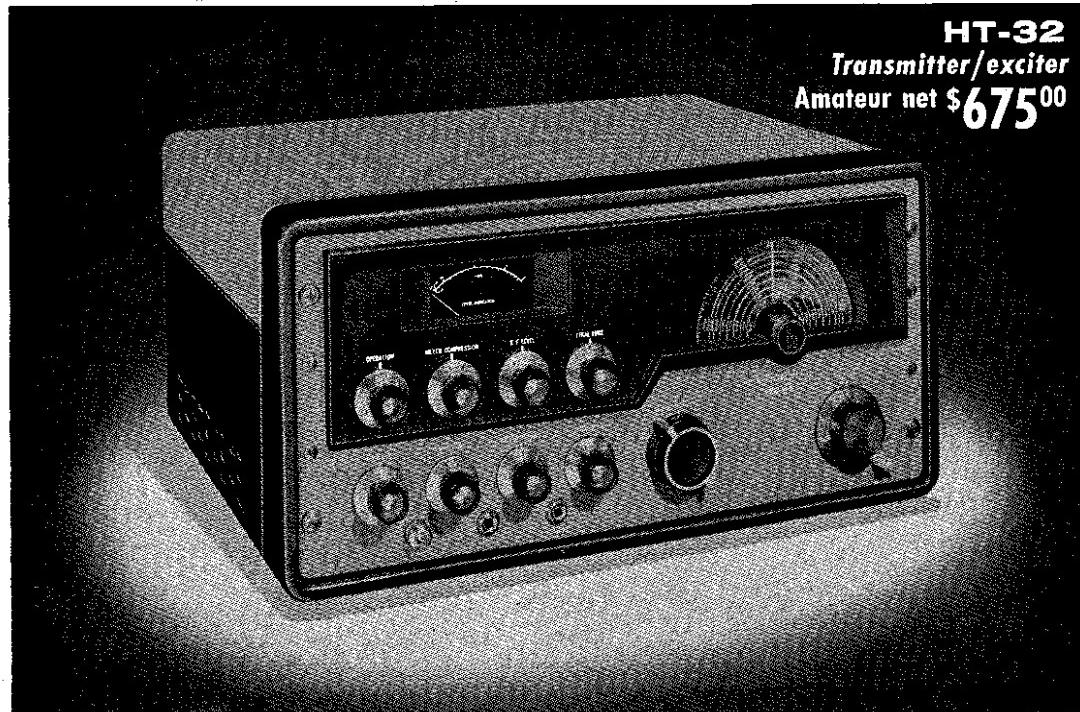
*Guaranteed*  
FOR ONE FULL YEAR

SEE YOUR NEAREST DISTRIBUTOR  
MOST OF THEM CAN OFFER TIME-PAYMENTS TO SUIT YOUR BUDGET

**WRL** *Electronics*  
34th & BROADWAY  
COUNCIL BLUFFS, IOWA



*From this exclusive HIGH FREQUENCY filter originates the cleanest signal on the air!*



**Hallicrafters new HT-32 transmitter features  
5.0 mc. quartz crystal filter... new bridged-tee  
modulator... high stability... gear-driven V.F.O.**

• Forget your old ideas about SSB signal clarity! The HT-32 establishes *entirely new standards* with two major achievements of the world famous Hallicrafters laboratories—yours exclusively in the HT-32:

**1. 5.0 mc. quartz crystal filter.** Result of a 3-year research program, the crystal filter system now is commercially practical at *high frequencies*. System cuts unwanted sideband 50 db. or more!

**2. New bridged-tee modulator.** Temperature stabilized and compensated network provides carrier suppression *in excess of 50-db.* Patented diode application develops

sideband energy from audio voltage. World's most stable modulator. These and many other features make your decision *clear*—compare the HT-32 with any other transmitter available. Your supplier has all the details. Stop by and see him today.

**ADDITIONAL FACTS ABOUT THE HT-32**

- SSB, AM or CW output on 80, 40, 20, 15, 11-10 meter bands.
- High-stability, gear-driven V.F.O.
- 144 watts peak power input.
- Distortion products down 30 db or more.
- Complete band switching.
- C.T.O. direct reading in kilocycles.
- T.V.I. suppressed.



# September is

## SSB BONUS\* month at ALLIED

**Outstanding SSB Gear Ready for Immediate Shipment From Stock**

### TRANSMITTERS

Collins KWM-1  
Collins KWS-1  
Hallicrafters HT-32  
Hallicrafters HT-33  
Johnson 500  
Johnson Pacemaker  
Johnson Valiant  
Central 20-A  
Central 100V  
Central 600L  
Lakeshore Phasemaster  
Lakeshore P-400 GG Amplifier



### RECEIVERS

Collins 75A4  
Hallicrafters SX-101  
Hallicrafters SX-100  
National NC-109  
Hammarlund HQ-110 with HC-10  
RME 4350 with 4301



Join the Swing to SSB—It's Easy at Allied!  
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**10% more for you**  
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When you trade with ALLIED for SSB equipment in September, we'll give you a whopping 10% MORE than our regular high trade-in allowance for your old ham gear. You'll not only get our regular liberal allowance, but we'll add a big EXTRA 10% to help you get that SSB rig you want. Remember—you get that 10% bonus at ALLIED—during September only. Our usual liberal time payment terms still apply—only 10% down, up to 18 months to pay.

Select your new equipment now from the ALLIED 1958 Catalog—just off the press. It's packed with *everything* in Ham gear, including many new SSB units.

**Be sure to visit ALLIED . . .  
special free bus from Palmer House**

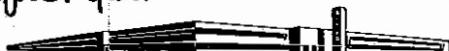
Take advantage of ALLIED's special SSB trade-ins right NOW, during the convention. Visit our Ham Shack . . . tour the world's largest electronics house. Come to ALLIED at Western and Washington. It's a short distance from the Loop and there's a big parking lot if you drive.

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Serving the Amateur for 37 Years

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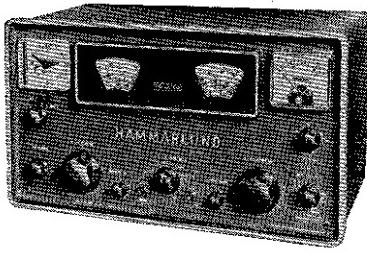


## **HQ-100** General-Purpose Communications

Receiver — Ten tube superheterodyne with automatic noise limiter. Continuously tunable from 540 KCS to 30 MCS. Electrical bandspread tuning. Q-Multiplier. High sensitivity. Auto-Response automatically adjusts audio bandpass.

**\$16900\***

\*Clock-timer  
\$10.00 extra



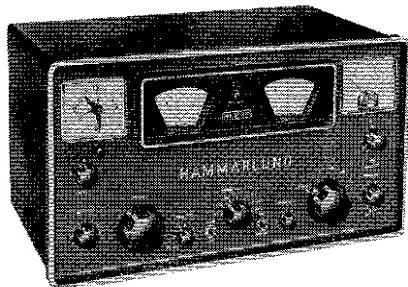
# **EVERY ONE... A HONEY FOR THE MONEY!**

## **HQ-110** Amateur Communications Receiver

— Dual conversion superheterodyne with automatic noise limiter. Covers 6, 10, 15, 20, 40, 80 and 160 meter amateur bands. Separate SSB linear. Q-Multiplier. Crystal calibrator. Separate stabilized BFO. Crystal control. Auto-response.

**\$22900\***

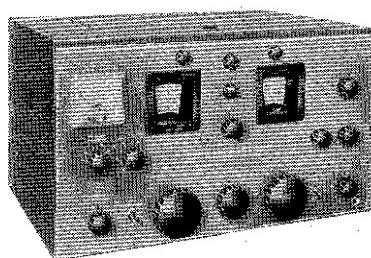
\*Clock-Timer  
\$10.00 extra



## **HQ-150** Professional-Type Communications Receiver

— Continuously tunable from 540 KCS to 31 MCS. Only receiver to offer selectivity of Q-Multiplier and Crystal Filter. Electrical bandspread. Crystal calibrator. 13 tube superheterodyne with noise limiter. Extremely stable BFO. Uniformly high sensitivity. Extra-high signal-to-noise ratio.

**\$29400**



## **HC-10**

**SSB/CW or AM/MCW Converter** — Works with any receiver having IF between 450 KCS and 500 KCS. Takes seconds to connect. Complete self-contained audio system and power supply. Tuned IF with seven selectivity positions. Vernier type tuning. Razor-sharp slot filter, adjustable over passband.

**\$14900**

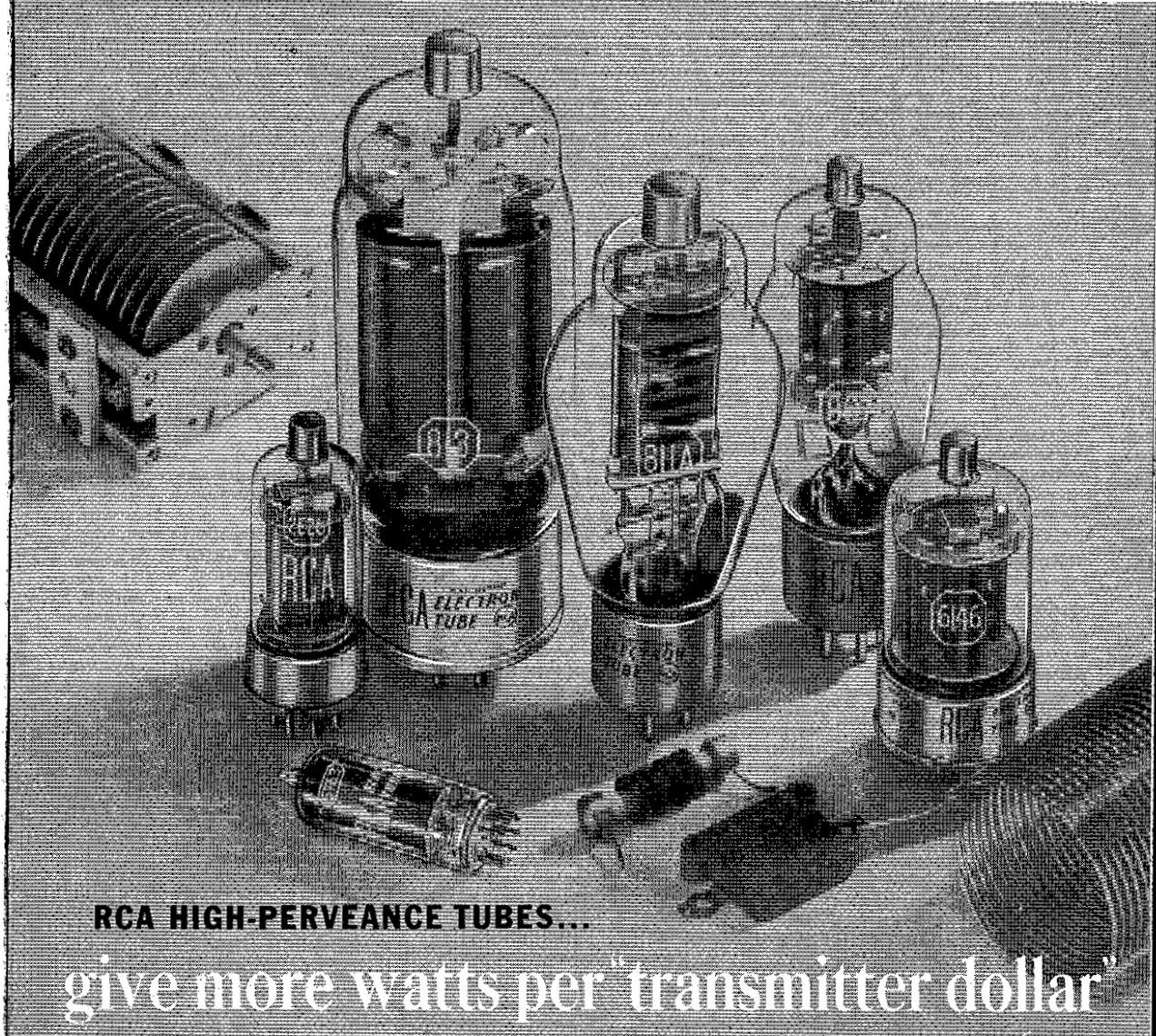


SINCE 1910

# **HAMMARLUND**

HAMMARLUND MANUFACTURING COMPANY, INC.  
460 West 34th Street, New York 1, New York

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## RCA HIGH-PERVEANCE TUBES... give more watts per transmitter dollar™

Known for their ability to handle high power at relatively low plate voltage, RCA high-perveance tubes are the answer for radio amateurs looking for power types that will save substantially on transmitter construction costs.

Here's why RCA high-perveance designs contribute to overall economy:

High-perveance tubes—an original RCA development—enable you to use lower-voltage-rated tank-circuit components. These tubes eliminate the need for very high-voltage plate transformers and very-high-voltage-rated filter capacitors. They enable you to use more reasonable values of pi-network components. And they simplify your insulation problems.

The power tubes pictured here are typical of the many RCA high-perveance types available to provide power up to the legal limit. Ratings on these and other RCA high-perveance types are listed on the chart.

RCA high-perveance tubes are available at your RCA Tube Distributor. For technical data on any of these types, write RCA Commercial Engineering, Section D-15-M, Harrison, N. J.

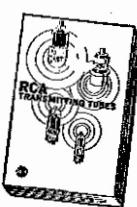
### See how little plate voltage it takes for the power you want

RCA Tube No.	Type	DC Plate Input Watts		DC Plate Volts	
		CW	AM	CW	AM
2E26	Beam Power	40	27	600	500
4X150A	Beam Power	250	200	1250	1000
807	Beam Power	75	60	750	600
810	Triode	750	500	2500	2000
811-A	Triode	260	175	1500	1250
812-A	Triode	260	175	1500	1250
813	Beam Power	500	400	2250	2000
815	Twin Beam Power	75*	60*	500	400
829-B	Twin Beam Power	120*	90*	750	600
832-A	Twin Beam Power	50*	36*	750	600
5763	Beam Power	17	15	350	300
6146	Beam Power	90	67.5	750	600
8000	Triode	750	500	2500	2000
8005	Triode	300	240	1500	1250

\*Total for Tube

### POWER TUBE AUTHORITY

New 256-page RCA Transmitting Tube Manual TT-4 covers 108 power types, and 13 rectifier types. Includes theory, data, installation, application, and useful circuits. See your RCA Tube Distributor. Or send \$1.00 to RCA Commercial Engineering, Harrison, N. J.



**TUBES FOR AMATEURS**  
RADIO CORPORATION OF AMERICA  
Tube Division • Harrison, N. J.



Mary Burke, W3CUL, 1956 Edison Award winner, is honored at the banquet ceremony held February 28, 1957, at Washington's Mayflower Hotel, with Rear Admiral H. C. Bruton, chief of naval communications, the principal speaker. Left to right: Admiral Bruton, Mrs. Burke, and L. B. Davis, general manager of the G-E electronic components division. (Official U. S. Navy photograph)

## NOMINATIONS NOW OPEN FOR 1957 EDISON AWARD

The 1957 Edison Award once more will honor an amateur who has rendered outstanding public service—will be a tribute to the assistance which all radio amateurs offer their communities and the nation when need arises.

A committee of distinguished and impartial judges will select the Edison Award winner. He will be chosen from candidates who are nominated in letters from you and others.

Since only names submitted by letter will be considered for the Award, your participation and support are essential. Start now to choose a suitable candidate! The rules at right will help you in preparing your nominating letter. Mail it to

*Edison Award Committee, General Electric Company, Electronic Components Div., Owensboro, Ky.*

### RULES OF THE AWARD

**WHO IS ELIGIBLE.** Any man or woman holding a radio amateur's license issued by the F.C.C., Washington, D.C., who in 1957 performed a meritorious public service, in behalf of an individual or group. The service must have been performed while the candidate was pursuing his hobby as an amateur within the continental limits of the U. S.

**WINNER OF THE AWARD** will receive the Edison trophy in a public ceremony in Washington, D.C. Expenses of his trip to that city will be paid.

**\$500 GIFT.** Winner will be presented with a check for this amount in recognition of the public service he has rendered as a radio amateur.

**WHO CAN NOMINATE.** Any individual, club, or association familiar with the public service performed.

**HOW TO NOMINATE.** Include in a letter a full description of the service performed, as well as the candidate's name, address, and call letters. Your letter of

nomination must be postmarked not later than January 3, 1958.

**BASIS FOR JUDGING.** All entries will be reviewed by a group of distinguished and impartial judges. Their decisions will be based on (1) the greatest benefit to an individual or group, (2) the amount of ingenuity and sacrifice displayed in performing the service. The judges will be:

**E. ROLAND HARRIMAN**, Chairman, The American National Red Cross.

**ROSEL H. HYDE**, Commissioner, Federal Communications Commission.

**GOODWIN L. DOSLAND**, President, American Radio Relay League.

Winner of the Award will be announced on or before Thomas A. Edison's birthday, February 11, 1958.

Employees of the General Electric Company may nominate candidates for the Edison Radio Amateur Award, but are not permitted to receive the Award.

**GENERAL**  **ELECTRIC**

166-1B1

## **NOTES**

# LAKESHORE announces the new and improved



## CONDENSED SPECS

- SWITCHABLE EYE  
FOR TUNE UP OR  
DISTORTION CHECKING
- IMPROVED 9 MC  
STABILITY
- NEW STEEL CHASSIS
- TALK ON FREQUENCY  
OR ZERO BEAT
- VOLTAGE REGULATION
- MANY OTHER FEATURES

*See us and our complete line  
at the 9th ARRL Convention*

**Lakeshore INDUSTRIES**  
MANITOWOC, WISCONSIN  
MANUFACTURERS OF PRECISION ELECTRONIC EQUIPMENT

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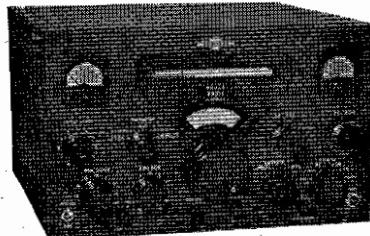
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# performance...

## the basis for a great reputation!

From the first Collins Amateur equipment to the present SSB station, Collins performance has been the standard for comparison.

See your Collins distributor. You can own the finest for a few pennies a day.



**KWS-1**

**POWER AMPLIFIER INPUT** — 1 kw peak envelope power SSB, 1 kw CW operation.

**R-F OUTPUT IMPEDANCE** — 52 ohms.

**FREQUENCY BANDS** — 80, 40, 20, 15, 11, 10 meters.

**EMISSION** — SSB, AM carrier plus one sideband, CW.

**HARMONIC AND SPURIOUS RADIATION** — (Other than 3rd order distortion products.) Intra-channel radiation is at least 50 db down. All spurious radiation at least 40 db down at output of exciter. Second harmonic at least 40 db down; all other harmonics at least 60 db down.

**DISTORTION** — SSB, 3rd order products 35 db down or better at 1 kw PEP.

**FREQUENCY STABILITY** — After 15 minutes warmup, within 300 cps of starting frequency. Dial accuracy: 350 cps after calibration.

**AUDIO CHARACTERISTICS** — Response  $\pm 3$  db, 200 to 3,000 cps. Noise and hum: 40 db or more below reference output level. Input: .01 volts for rated power output.

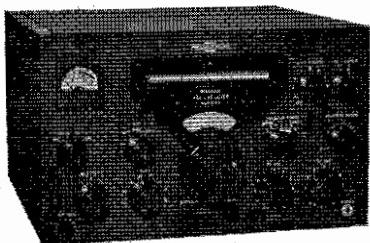
**MICROPHONE INPUT** — Will match high impedance dynamic or crystal.

**WEIGHT** — 210 pounds. Both units.

**SIZE** — KWS-1 — 10-15/32" high, Power Supply 30" high, 17 $\frac{1}{2}$ " wide, 15 $\frac{1}{2}$ " deep.

**RELAY RACK MOUNTING** — Mounting brackets kits available for RF Unit and power supply.

Net Price.....\$2,095.00



**75A-4**

**FREQUENCY BANDS** — 160, 80, 40, 20, 15, 11, 10 meters.

**SIZE** — 10-15/32" high, 17 $\frac{1}{2}$ " wide, 15 $\frac{1}{2}$ " deep.

**WEIGHT** — 35 pounds.

**RELAY RACK MOUNTING** — Mounting brackets kits available.

**NUMBER OF TUBES** — 22, including rectifiers.

**SENSITIVITY** — 1.0 microvolt for 6 db signal-to-noise ratio with 3 kc bandwidth.

**AVC CHARACTERISTICS** — Audio rise less than 3 db for inputs of 5 to 200,000 uv.

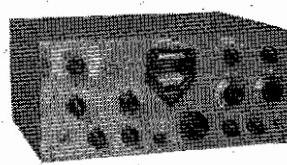
**IMAGE AND IF REJECTION** — Image ratio at center of each band 50 db or better. If rejection at center of each band 70 db or better.

**AUDIO CHARACTERISTICS** — Output — .75 watts with a 3.0 uv signal, 30% modulated. Output impedance — 500 ohms, 4 ohms. Response of audio circuits —  $\pm 3$  db 100 cps to 5,000 cps. Distortion — Less than 10%.

**MUTING** — Provisions for muting the Receiver during key-down operation are provided. A muting voltage of +20 volts must be supplied by transmitter.

**FREQUENCY STABILITY (at 14 mc)** — Temperature — Less than 1200 cycles drift from 0° to 60°C. Warmup drift — Less than 300 cycles after 15 minute operation. Line voltage — Less than 100 cycles for  $\pm 10\%$  change. Dial accuracy — 350 cycles after calibration.

Net Price.....\$695.00



**KWM-1**

**RF POWER INPUT** — 175 watts SSB PEP or 160w CW.

**OUTPUT IMPEDANCE** — 50 ohms with not more than 2.5 SWR.

**POWER SOURCE** — 115 vac 50-60 cps, 320w max, 12 vdc, or 28 vdc, 25a max.

**SIZE** — Transceiver — 6 $\frac{1}{4}$ " high, 14" wide, 10" deep. AC Power Supply — 6 $\frac{1}{4}$ " high, 7 $\frac{1}{2}$ " wide, 10" deep. DC Power Supply — 4 $\frac{1}{4}$ " high, 9" wide, 5" deep. Speaker cabinet — 6 $\frac{1}{4}$ " high, 7 $\frac{1}{2}$ " wide, 10" deep.

**WEIGHT** — Transceiver, 15 lbs.; AC Power Supply, 25 lbs.; DC Power Supply, 15 lbs.; Speaker Cabinet, 5 lbs.

**FREQUENCY** — 14-30 mc continuous. Choice of any ten 100 kc bands by crystal switch. Standard complement of crystals — 14.0-14.1 mc CW, 14.2-14.3 mc SSB, 14.9-15.0 mc calibration with WWV, 21.0-21.1 mc CW, 21.3-21.4 mc SSB, 21.4-21.5 mc SSB, 28.0-28.1 mc CW, 28.1-28.2 mc CW, 28.5-28.6 mc SSB, 28.6-28.7 mc SSB.

**FREQUENCY CONTROL** — 70K-1 Permeability Tuned VFO.

**HARMONIC AND SPURIOUS RADIATION** — Carrier suppression — 50 db, unwanted sideband — 50 db, oscillators and mixer products — 50 db, second harmonic — 50 db, 3rd order products — 30 db.

**FREQUENCY STABILITY** — After 10-minute warmup, within 100 cps. Reset within 1 kc throughout range.

**RECEIVER SENSITIVITY** — 1.0 uv for 6 db S/N ratio with 3 kc bandwidth.

Net Price.....\$770.00

*Collins*

CREATIVE LEADER IN COMMUNICATION

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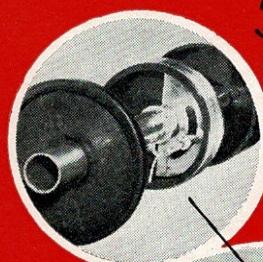
*Now in Stock...At Leading Amateur Radio Distributors  
Everywhere!* PROVEN & TESTED . . . IN THE  
WORLD'S HAM SHACKS

# the *hy-gain* 3-Element Tri-Bander

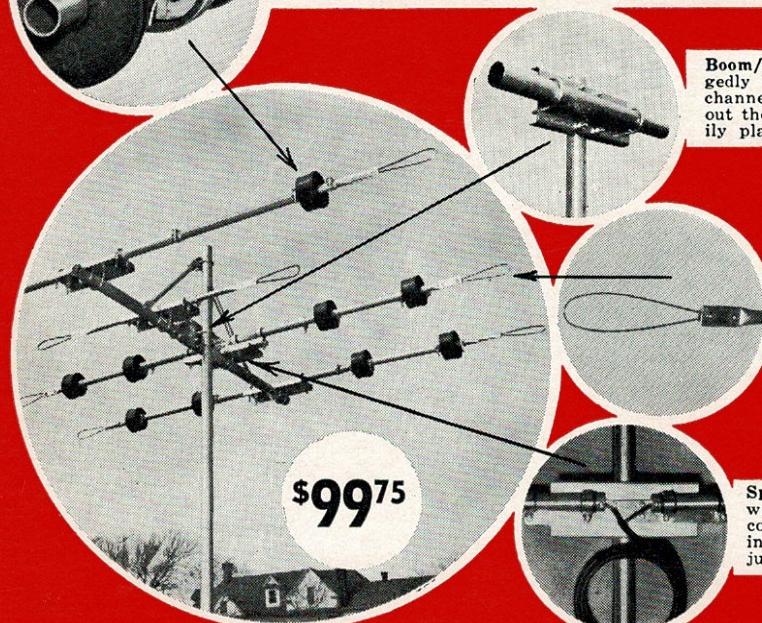
ONE FEEDLINE - THREE BANDS (10, 15 & 20M)

There Are More *hy-gain* Tri-Banders In Use Than All Other 3-Band Beams Combined!

## 3 Active Elements on Each Band!



Exclusive New Insu-Trap:- a new concept in parallel resonant trap circuits obsoletes old fashioned open-type coils. The only adjustable, completely weatherproof trap. Adjustable capacitor color coded for Fone or CW. Hi-Q coils wound on high impact styron forms which also act as low power factor dielectric for adjustable capacitors. No air dielectric involved. Trap assembly completely enclosed in weatherproof polyethylene cover with 2 grams of silica gel to absorb condensation.



Boom/Mast and Element Clamp:- ruggedly designed 12 Ga. galvanized steel channel for positive grip. Used throughout the entire Tri-Bander Series. Heavily plated and serrated 5/16" U-Bolts.

The "Carpet Beater" Ends:- employed on all Tri-Banders, specially designed of aluminum wire to reduce fatigue caused by vibration, increase the broad band characters of the beam, and to reduce element sag to a minimum.

Split Insulated Dipole:- fed directly with RG-8U ohm coaxial cable and coaxial line balancing choke results in low SWR on all bands. No adjustment necessary.

All specifications furnished from experimentally derived data. These figures will maintain in most installations if antenna is relatively in the clear.

	Model No.	Gain in DB Over Dipole	F/B Ratio In DB	SWR	Max. Power	Horizontal Beam Width	Boom Length	Boom Diameter	Element Diameter	Element Wall	Element Alloy	Longest Element	Approx. Net Wt.
3 Element	152T-3	8 Aver.*	25 Aver.	Less Than 1.5:1	1 Kw	59°	216"	1 1/2" Hot Dip Galv. Steel	1 1/8, 1, 7/8, 3/4"	.058, .049, .035	6061ST6 Ant. 41	31', 9"	58#

\* Additional Director Element for Increased Gain and F/B Ratio on 10M, Net \$14.95.

The standard of comparison for three band antenna systems, the *hy-gain* Tri-Bander is factory pre-tuned, pre-matched and pre-adjusted and may be erected in an extremely short time with no test equipment and no further adjustment necessary. Guaranteed to outperform stacked arrays, because interaction and detuning effects have been eliminated. All hardware hot dip galvanized steel for maximum weather ability. Injection molded polyethylene, styron and cycloac plastic used throughout. Complete assembly and installation instructions furnished.

PLUS THE COMPLETE LINE OF HY-GAIN ANTENNA PRODUCTS  
**ROTO BRAKE - AUTOMATIC & ECONOMY VERTICAL ANTENNAS**  
**5-BAND DOUBLET & DOUBLET COILS - 10, 15 & 20M STANDARD**  
**GLOBE SPANNERS - 2M, 5-ELEMENT . . . 2 M, 10-ELEMENT . . .**  
**6M, 5-ELEMENT AND THE 1-ELEMENT, 2-ELEMENT**  
**AND 5-ELEMENT TRI-BANDERS**

*hy-gain* antenna products

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